



## PATIENT

Rosie Rosales

## SPECIES

Feline

## BREED

DSH

## SEX

Female Spayed

## AGE

12 years

## WEIGHT

7.7lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Dana Alterman,  
RDMS, LVT

## HOSPITAL NAME

Eubank Animal Clinic

## REFERRING VET

Dr. Young

## INVOICE

28497

## DATE

1/23/23

## PRESENTING CLINICAL SIGNS

History: Grade 3/6 heart murmur.

## ELECTROCARDIOGRAPHIC FINDINGS \*Note: Single lead ECGs are evaluated as a rhythm strip.

Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 50mm/s, 20mm/mV. The average heart rate is 214bpm with a largely regular rhythm. The P wave cannot be identified due to low voltage complexes. The QRS is inverted. No obvious dysrhythmias observed.

ECG diagnosis: Suspect normal sinus tachycardia.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal in dimension, although not extensively visualized. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle remodeling. The right ventricle is subjectively normal in size and morphology. There is mild left atrial dilation. No right atrial enlargement present. Normal RVOT velocity. There is mild systolic anterior motion (SAM) of the mitral valve present, with a dynamic profile captured on doppler. Trace secondary eccentric mitral regurgitation seen. No tricuspid regurgitation. No AI/PI. There is no pericardial effusion noted. No pleural effusion appreciated. No obvious cardiac tumors.

## CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LVWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	3.5	NM	0.44	1.44	0.43	67	95
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>		LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.5	1.4		3.0	NM	NM
<p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> Adapted from June Boon, Veterinary Echocardiography, 1998 Abbott J &amp; MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.</p>							

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is a dynamic LVOT obstruction and trace mitral regurgitation. No obvious LV hypertrophy has developed, and may indicate a primarily stress-induced abnormality. The LA is mildly dilated however, which is concerning for progressive disease in the future (UCM?). No additional issues are identified. The ECG is unremarkable with a normal sinus rhythm.

While no medications have been shown to definitively alter long term outcome at this stage of disease, it is reasonable to initiate at this time as below in light of the outflow tract obstruction and LA dilation. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6-12 months, however is less ideal in this case. No obvious correlation with wheezing is suspected given only mild LA dilation.



## PATIENT

Rosie Rosales

Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

## SPECIES

Feline

Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.

## BREED

DSH

## SEX

Female Spayed

## PLAN

If able, administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached. Screening blood pressure and T4 is recommended every 6 months.

## AGE

12 years

Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

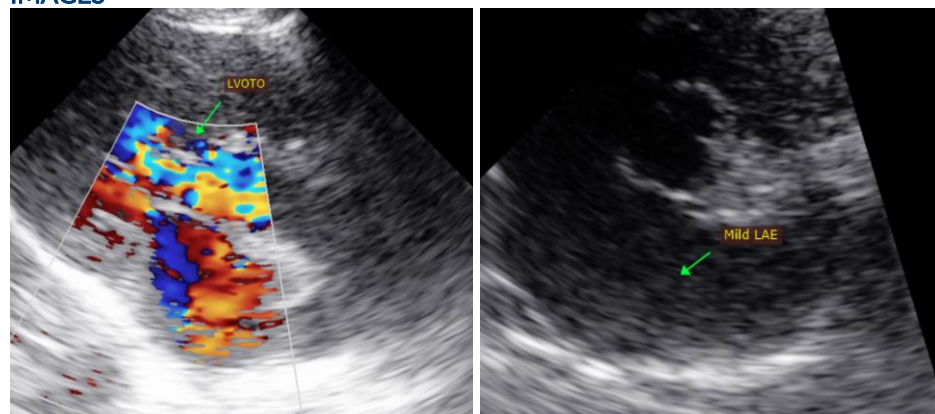
## IMAGES

### WEIGHT

7.7lbs

### INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

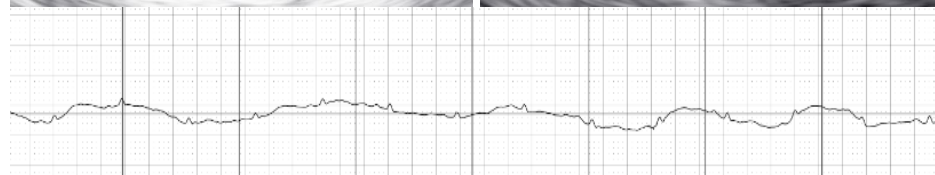


### IMAGING PERFORMED BY

Dana Alterman,  
RDMS, LVT

### HOSPITAL NAME

Eubank Animal Clinic



### REFERRING VET

Dr. Young

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

### INVOICE

28497

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

### DATE

1/23/23

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com